AMENDMENT

IN THE CLAIMS:

Please cancel claims 5, 6, 13, 14, 20, 21, 25-28, 30 and 32, without prejudice.

Please amend claims 1, 7-12, 15, 19, 24, 29 and 31, without prejudice, to read as follows:

1. (Amended Twice) A transgenic potato plant cell which is genetically modified, the genetic modification leading to a decrease in the activity of one or more granule-bound starch synthase I (GBSSI) proteins occurring endogenously in the potato plant cell and to a decrease in the activity of one or more branching enzyme I (BEI) proteins occurring endogenously in the potato plant cell, in comparison to corresponding non genetically modified potato plant cells of wild-type plants, wherein said genetic modification comprises the introduction of one or more foreign nucleic acid molecules, in which said foreign nucleic acid molecules are selected from the group consisting of:

(a) DNA molecules which encode at least one antisense RNA which brings about a decrease in the expression of endogenous genes encoding GBSSI and/or BEI proteins; and

(b) DNA molecules which lead, via a cosuppression effect, to a decrease in the expression of endogenous genes encoding GBSSI and/or BEI proteins.

7. (Amended Twice) The transgenic potato plant cell as claimed in claim 6, which synthesizes a modified starch having an amylopectin content of at least 90% and in comparison to starch from plant cells of corresponding potato plants of the waxy phenotype having an increased phosphate content.

8. (Amended Twice) A process for the production of a transgenic potato plant cell which synthesizes a modified starch, in which a potato plant cell is genetically modified by the introduction of one or more foreign nucleic acid molecules, wherein the presence and/or expression of the one or more foreign nucleic acid molecules leads to a decrease in the activity of at least one GBSSI protein and to a decrease in the activity of at least one BEI protein, in which said foreign nucleic acid molecules are selected from the group consisting of:

(a) DNA molecules which encode at least one antisense RNA which brings about a decrease in the expression of endogenous genes encoding GBSSI and/or BEI proteins; and

(b) DNA molecules which lead, via a cosuppression effect, to a decrease in the expression of endogenous genes encoding GBSSI and/or BEI proteins.

9. (Amended Twice) A process according to claim 8, wherein the modified potato starch has an amylopectin content of at least 90% and an increased phosphate content in comparison to starch from corresponding potato plants of the waxy phenotype.

10. (Amended Twice) A process for the production of a transgenic potato plant which synthesizes a modified starch, in which:

(a) a potato plant cell is genetically modified by the introduction of one or more foreign nucleic acid molecules wherein the presence and/or expression of the one or more foreign nucleic acid molecules leads to a decrease in the activity of at least one GBSSI protein and

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to a decrease in the activity of at least one BEI protein, wherein said nucleic acid molecules are selected from the group consisting of

(i) DNA molecules which encode at least one antisense RNA which brings about a decrease in the expression of endogenous genes encoding GBSSI and/or BEI proteins and

(ii) DNA molecules which lead, via a cosuppression effect, to a decrease in the expression of endogenous genes encoding GBSSI and/or BEI proteins;

(b) a potato plant is regenerated from the cell produced according to step a); and,

(c) if appropriate, further potato plants are produced from the plants produced according to step b).

11. (Amended Twice) The process according to claim 10, wherein the modified potato starch has an amylopectin content of at least 90% and an increased phosphate content in comparison to starch from corresponding potato plants of the waxy phenotype.

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12. (Amended) A transgenic potato plant containing potato plant cells as claimed in claim 1.

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15. (Amended Twice) A reproductive material of a potato plant as claimed in claim 12, containing potato plant cells as claimed in claim 1.

19. (Amended Twice) A composition containing at least one of the nucleic acid molecules as defined in claim 1, which is suitable for the production of transgenic potato plant cells as claimed in claim 1, the presence of said nucleic acid molecules in said potato plant cells leading to a decrease in the activity of GBSSI proteins occurring endogenously in the potato plant cell and to a decrease in the activity of BEI proteins occurring endogenously in the potato plant cell.

24. (Amended) A transgenic potato plant cell containing a composition as claimed in claim 19.

29. (Amended Twice) A process for the production of a modified potato starch from a transgenic potato plant, comprising extracting the starch from the potato plant according to claim 12.

31. (Amended) The process of claim 29, wherein the modified potato starch has an amylopectin content of at least 90% and an increased phosphate content in comparison with starch from corresponding potato plants of the waxy phenotype.

[Please add new claim 33 as follows:]

-- 33. (New) The process of claim 31, wherein the modified potato starch has a decreased gelatinization temperature in comparison with starch from corresponding potato plants of the waxy phenotype. --